

## CLAIMS

What is claimed is:

1. A control system which varies the compression ratio of an internal combustion engine, comprising:
  - a. A moveable crankshaft assembly which is equipped with maximum and minimum limiting stops.
  - b. An hydraulic device, such as an hydraulic cylinder, which positions the moveable crankshaft assembly.
  - c. A constant pressure reservoir that is maintained at constant pressure within predetermined limits.
  - d. Hydraulic connections that are between the moveable crankshaft hydraulic positioning device and the constant pressure hydraulic reservoir.
  - e. Pressure relief valves, or equivalent devices, that permit passage of the hydraulic fluid in either direction between the hydraulic positioning device and the constant pressure reservoir.
  - f. A coupling between the moveable crankshaft assembly and the power train capable of accommodating the movement and transferring the rotational movement of the crankshaft to the power train.
2. A moveable crankshaft assembly attached to the engine block on one side with hinges parallel to the axis of the engine and supported on the other side by the hydraulic positioning device which moves the hinged assembly to obtain the desired compression ratio.
3. Hydraulic connections between the hydraulic positioning device and the constant pressure reservoir consisting of appropriate tubing and pressure relief valves, or equivalent devices, installed in a manner to pass fluid in either direction between the hydraulic positioning device and the constant pressure reservoir to maintain the same pressure throughout the system. Pressure is maintained in the constant pressure reservoir by a spring-loaded piston.